



PATENT SPECIFICATION

602,379

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INDEX AT ACCEPTANCE—Class 40 (iv),
J (3a : 4b : 6b).

COMPLETE SPECIFICATION

Improvements in or relating to Telephone Receivers

We, STANDARD TELEPHONES AND CABLES LIMITED, a British Company, and JAMES SAMUEL PATERSON ROBERTSON, a British Subject, both of Connaught House, 63 Aldwych, London, W.C.2, England, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

10 This invention relates to telephone receivers and particularly to means for supporting lightweight receivers from the ear, for use, for instance, in hearing-aid sets.

One feature of the present invention comprises a telephone receiver handband comprising a pair of hooks shaped to pass one around each ear and a neckband interconnecting the hooks.

A second feature of the present invention comprises a headband receiver comprising a pair of hooks each shaped to pass round one ear and a neckband directly or indirectly interconnecting the hooks.

Several embodiments of the invention will now be described with the aid of the accompanying drawings, in which:—

Figs. 1 and 2 show views of a telephone or deaf-aid receiver earpiece of the insert type (wherein part of the receiver enters the tunnel of the ear), fitted to the right ear of the wearer, as seen from the back and side of the wearer's head, respectively.

Figs. 3 and 4 show views of an external earpiece fitted to the left ear of a wearer as seen from the side and back of the head respectively.

Figs. 5, 6 and 7 show details of the construction of a wire hook member encased in a sleeve, and the method of fixing the same to an earpiece of the type illustrated in Figs. 3 and 4.

Fig. 8 shows a double headset using two receiver earpieces joined by a separate neck or head-band.

Fig. 9 shows a double headset using two earpieces supported by neckbands which is continuous with the ear-hooks.

Fig. 10 shows a double headset using two earpieces supported by a neckband, continuous with the ear-hooks, which is adapted to pass round the front of the wearer's neck.

The following is a more detailed description of the said Figures.

[Price 1/-]

Figs. 1 and 2. The insert receiver 1 has a moulded portion (not seen) which plugs into the outer end of the auditory canal and into one of the convolutions of the external ear. A wire hook 2 is secured to the insert, for example, by coiling a few turns round the projection 3 on which the moulded portion is fitted, and the hook then passes behind the pinna of the ear, 4. A flexible cord 5 follows the course of the wire hook through sleeving 6, emerging at a bend in the wire and sleeving 7 at the bottom of the hook behind the ear. The small upturned portion of the hook and sleeving 8 serves as a useful handle to assist in assembling the device on the ear. With the insert receiver here illustrated, the projection 3 supports the weight of the earpiece and the hook is adjusted to exert a sideways pressure tending to press the earpiece against the ear. The addition of the hook to an earpiece of this type enables a simpler form of insert to be used since convolutions designed to grip the ear laterally can be omitted.

Figs. 3 and 4. The earpiece 9 has an attached hook 10 which passes behind the pinna 12 of the ear. The bent-up portion 11 which is seen at the bottom can be used as a handle, 13 is the cord which is carried through sleeving on the wire hook to emerge at the bottom and behind the pinna. The hook member is adjusted to exert a sideways pressure tending to press the earcap against the ear and the friction occasioned by this pressure together with the bearing of the hook on the pinna of the ear supports the weight of the ear-piece.

Figs. 5, 6 and 7. Fig. 5 shows the moulded casing of an earpiece and contains the receiver unit (not seen). Fig. 6 shows the assemblage of a wire hook, sleeving and cord removed from the complete earpiece. Fig. 7 shows the earcap moulding, which contains a circular groove 14 having a short branch groove 15 near the top. On assembly, the circular portion 16 and the bent portion 17 of the wire hook fit into these grooves in the earcap and are clamped and held in position by the moulded casing 18 secured by three screws which pass through holes 19 into corresponding blind holes 20 in the earcap. The cord tags 21 are attached on assembly to the receiver terminals 22.

Fig. 8. The earpiece 23 is similar in construction to the unit shown in Figs. 3 to 7. The earpiece 24 is also similar, but is a right-handed version to suit the right ear. Both units differ from the single unit shown in Figs. 3 to 7 in having a swivelling arrangement for the joining wire band 25. This band is preferably a flexible wire covered with sleeving, but may be of any material and construction possessing the desired flexibility and exerting the necessary spring pressure. The joining band may be arranged to pass round the back or the front of the neck, or may be a simple head-band to pass over the head, or again, one band can be arranged so that it can be adjusted alternatively as either a head-band or a neck-band. The cords 26 from the earpieces are shown threaded through the sleeving to emerge at a suitable point in a common cord as at 27. Alternatively the cords can be carried along the hook members as previously described.

Fig. 9. In this design of double headset, the joining band is formed by a continuation of the two hook members of the receiver units. The two hook members and neck band may be in one piece or in two separate pieces overlapping or telescoping, to permit of length adjustment. In the latter case, if the hook members are of wire enclosed in sleeving, this sleeving would be in three sections with short gaps between to permit of this adjustment. An arrangement of leading out the cords at a point on the neck band, similar to that illustrated in Fig. 8, may be used or the cords may leave the hooks as shown.

Fig. 10 shows a form of double-head-set with hooks and neckband, similar to that shown in Fig. 9 but in which the neckband is arranged to pass in front of the wearer's neck.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A telephone receiver headband comprising a pair of hooks shaped to pass one around each ear and a neckband inter-connecting the hooks.
2. A headband receiver comprising a pair of hooks each shaped to pass round one ear and a neckband directly or indirectly inter-connecting the hooks.
3. A headband as claimed in claim 1 in which each hook is attached to a receiver earpiece.
4. A headband as claimed in claim 1 or 3 in which the hooks are integral with the neckband.
5. A headband as claimed in claims 1, 3

or 4 in which the neckband is adapted to pass round the back of the neck.

6. A headband as claimed in claims 1, 3 or 4 in which the neckband is adapted to pass round the front of the neck.

7. A headband receiver as claimed in claim 2 in which the neckband is attached at one end at least to a receiver or the like, which is itself attached to one of the hooks.

8. A headband receiver as claimed in claim 7 in which there is a receiver at one end only of the neckband.

9. A headband as claimed in claim 1, 3, 4 or 6 in which at least one hook, being tubular carries within it the flexible leads from a receiver associated with the hook.

10. A headband as claimed in claim 1, 3, 4 or 6 in which the flexible leads from a receiver pass through a sleeve enclosing the hook associated with the receiver.

11. A headband as claimed in claim 1, 3, 4 or 6 in which the flexible leads from a receiver are attached to a hook associated with that receiver at various points along the length of such hook.

12. A headband as claimed in claim 1, 3, 4 or 6 or a headband receiver as claimed in claim 2, 7 or 8 in which the neckband being tubular carries within it or within part of it the flexible leads from a receiver or receivers.

13. A headband as claimed in claims 1, 3, 4 or 6, or a headband receiver as claimed in claim 2, 7 or 8, in which the flexible leads from a receiver or receivers pass through or through part of a sleeve enclosing the neckband.

14. A head band as claimed in claims, 1, 3, 4 or 6 or a headband receiver as claimed in claim 2, 7 or 8 in which the flexible leads from a receiver or receivers are attached along the length of the neckband.

15. A headband or headband receiver as claimed in any of the preceding claims in which the length of the neckband is adjustable.

16. A headband or headband receiver as claimed in any of the preceding claims in which the hooks are made of springy or elastic material.

17. A headband or headband receiver substantially as described and as shown in the accompanying drawings.

DATED this 20th day of September, A.D. 1946.

U. JOHN PRIOR,
Chartered Patent Agent,
For the Applicants.

[This Drawing is a reproduction of the Original on a reduced scale.]

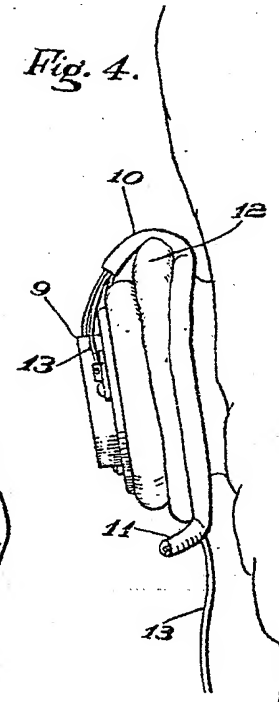
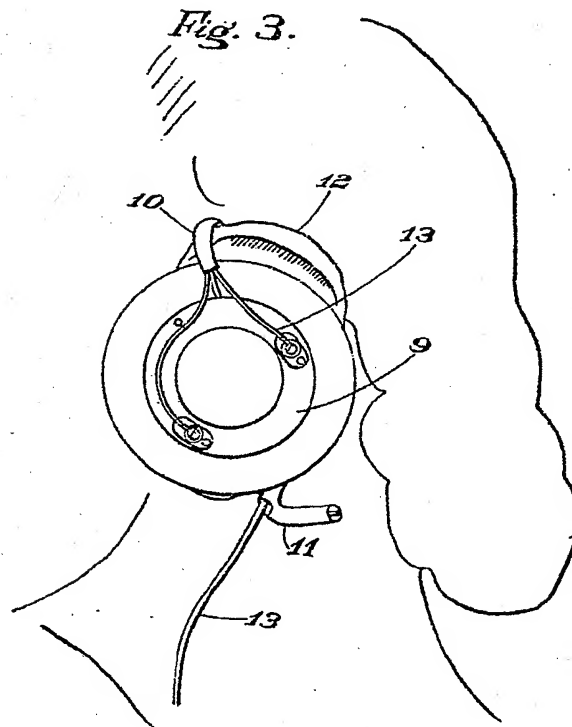
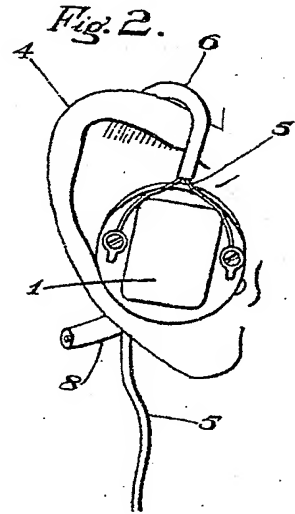
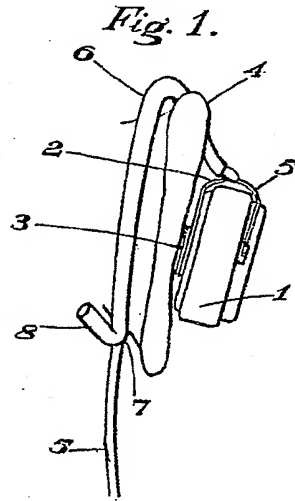


Fig. 5.

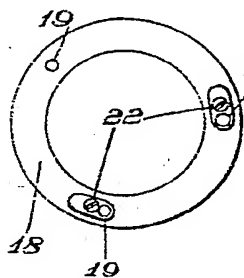


Fig. 6.

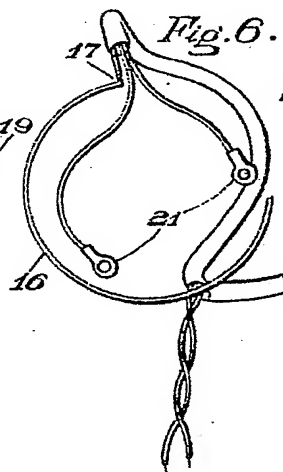


Fig. 7.

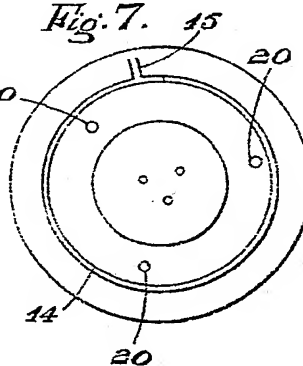


Fig. 8.

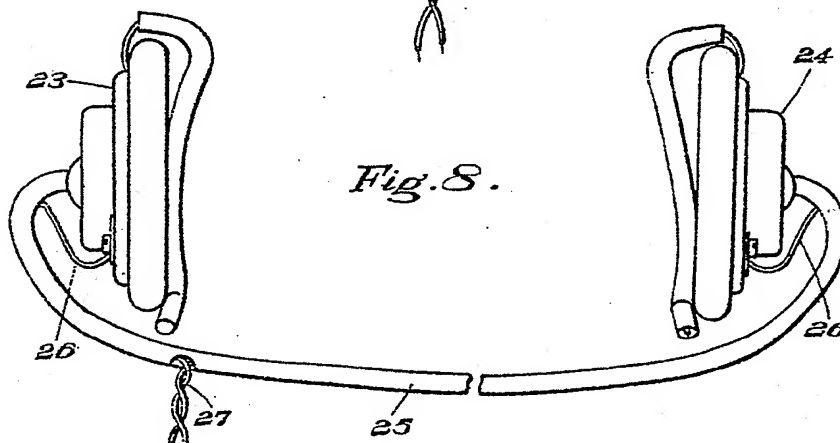
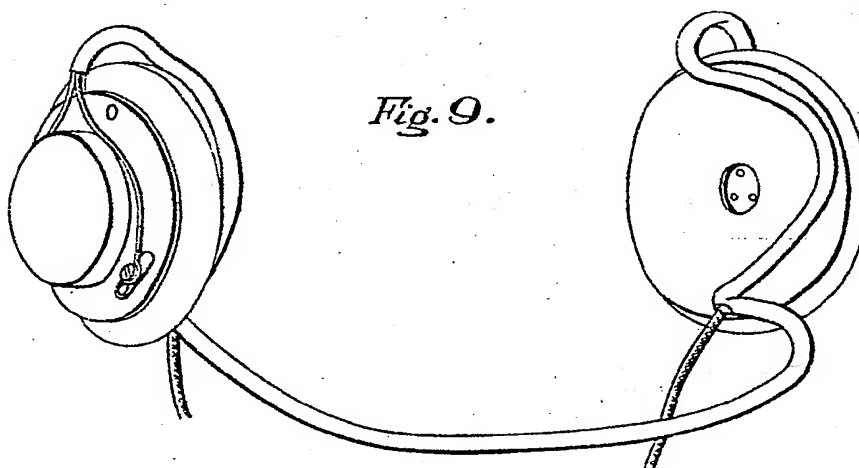


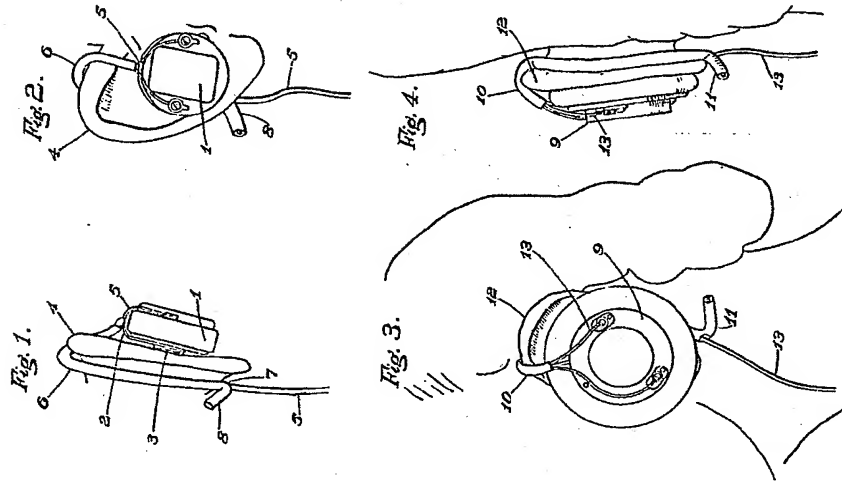
Fig. 9.



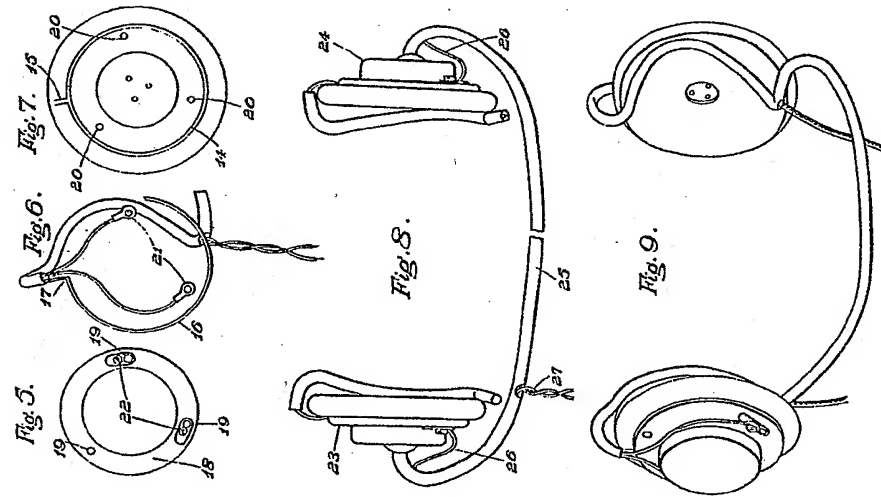
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602379 COMPLETE SPECIFICATION

SHEET 1



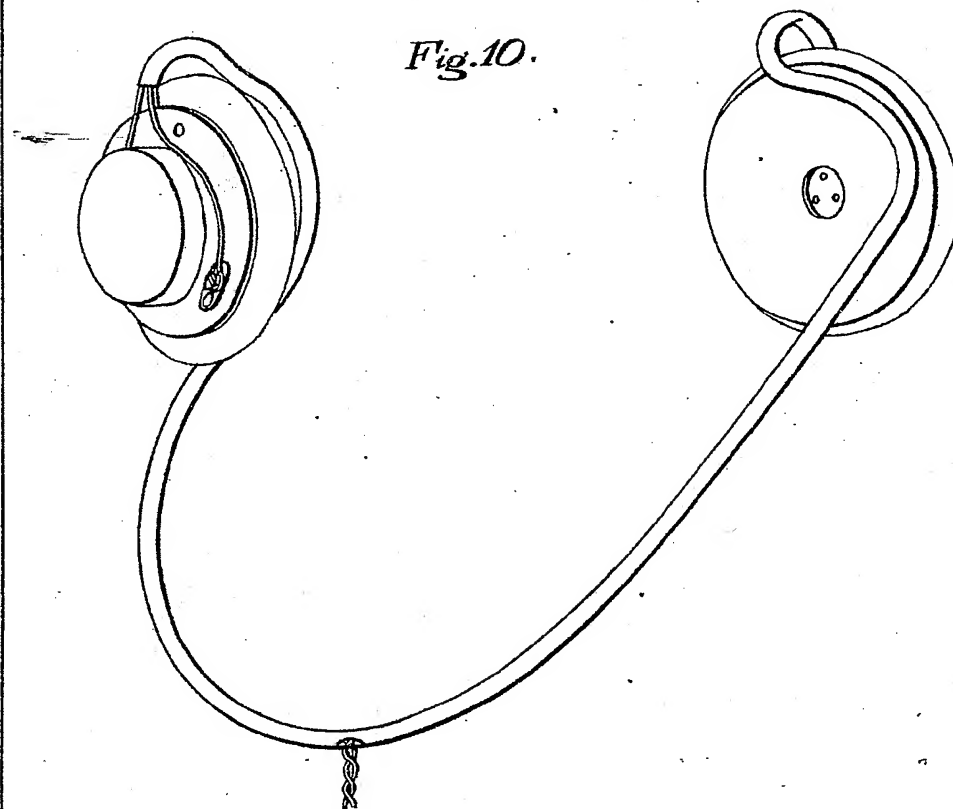
3 SHEETS
SHEET 2



H.M.S.O. (11/2)

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 10.



H.M.S.O. (Ty. P.)